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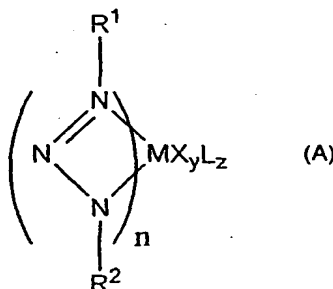
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(54) Title: POLYMERISATION CATALYSTS



(57) Abstract: A polymerisation catalyst comprising (1) a nitrogen-containing transition metal compound of Formula A, and (2) an organoaluminum or hydrocarbylboron activator, wherein either (a) R<sup>1</sup> and R<sup>2</sup> are monovalent groups or (b) R<sup>1</sup> and R<sup>2</sup> integrally form a divalent group R<sup>3</sup> bridging the terminal nitrogen atoms of the triazene unit via carbon atoms; R<sup>1</sup> and R<sup>2</sup> and the divalent group R<sup>3</sup> are (i) aliphatic hydrocarbon, (ii) alicyclic hydrocarbon, (iii) aromatic hydrocarbon, (iv) alkyl substituted aromatic hydrocarbon (v) heterocyclic groups and (vi) heterosubstituted derivatives of said groups (i) to (v); M is a metal from Group 3 to 11 of the Periodic Table or a lanthanide metal; X is an anionic group, L is a neutral donor group; n is 1 or 2, y and z are independently zero or integers such that the number of X and L groups satisfy the valency and oxidation state of the metal M. The catalyst is used to polymerise 1-olefins especially ethylene and propylene. High molecular weight homo- and co-polypropylene are disclosed.